

REMARKS

This Application has been carefully reviewed in light of the Office Action mailed March 21, 2007. Claims 1-48 and 50-65 were pending in the Application. In the Office Action, Claims 1-48 and 50-65 were rejected. Claims 1-48 and 50-65 remain pending in the Application. Applicants respectfully request reconsideration and favorable action in this case.

In the Office Action, the following actions were taken or matters were raised:

SECTION 102 REJECTIONS

Claims 1-2, 22-24, 26, 46 and 48 were rejected under 35 U.S.C. 102(b) as being unpatentable over the paper, "Pink Panther: A Complete Environment for Ground-truthing and Benchmarking Document Page Segmentation," authored by Yanikoglu et al. (hereinafter "*Yanikoglu*"). Applicants respectfully traverse this rejection.

Yanikoglu appears to disclose a method for benchmarking document page segmentation algorithms by comparing the results of the algorithms against a ground-truth file that is generated using an X-windows tool called a GroundsKeeper (*Yanikoglu*, page 1191, section 1, right column, page 1192, section 1, left column, page 1193, section 3). *Yanikoglu* appears to disclose that the GroundsKeeper tool allows a user to view a document image and manually draw zones or polygons around the different page regions and, after drawing a zone, the zone may be labeled by the user with its type (e.g., text, image), subtype (e.g., headline, caption), parent zone (e.g., cells in a table pointing to the table as their parent zone), and other attributes (*Yanikoglu*, page 1193, section 3.1, right column, page 1194, section 3.2, left column). *Yanikoglu* also appears to disclose that the zoning information created by the user using the GroundsKeeper tool is saved in an ASCII format, called RDIFF (Region Description Information File Format) (*Yanikoglu*, page 1193, sections 3 and 3.1, right column).

In the Office Action, the Examiner refers to the zones or polygons drawn by a user around various regions of the document image and thereafter labeled by the user using the GroundsKeeper tool as corresponding to the "region definition having a location specification and a type specification" of a region "in an image" as recited by Claim 1 (Office Action, pages 3 and 4). In the Office Action, the Examiner appears to rely on the same polygon drawn by the user to define a region in the image as also corresponding to "receiving a user-specified

definition of a visible area in the image, the visible area definition having a specification of margins around the image" as recited by Claim 1 (Office Action, page 4), which is an improper claim construction. For example, Claim 1 recites "receiving a definition of at least one region in an image, the region definition having a location specification and a type specification" and "receiving a user-specified definition of a visible area in the image, the visible area definition having a specification of margins around the image" (emphasis added). Thus, the Examiner appears to rely on the zone or polygon drawn by a user in *Yanikoglu* as corresponding to both the "region" that lies within the image and the "specification of margins around the image" defining the visible area of the image as recited by Claim 1 (emphasis added), which is improper. Moreover, the zone or polygon drawn by a user in *Yanikoglu* appears only to define a region that lies within an image and does not appear in any manner to specify margins around the image that define the visible area of the image. Therefore, for at least these reasons, Applicants respectfully submit that *Yanikoglu* does not anticipate Claim 1.

Moreover, Claim 1 recites "generating an image layout definition comprising the region definition and the visible area definition" (emphasis added). In the Office Action, the Examiner appears to rely on the polygons drawn by the user around different regions of the document image and presented in the RDIFF format as corresponding to the above-referenced limitation of Claim 1 (Office Action, page 4). Applicants respectfully disagree. As indicated above, the polygon drawn by a user in *Yanikoglu* appears only to define a region that lies within an image and does not appear in any manner to specify margins around the image that define the visible area of the image. Therefore, for at least this reason also, Applicants respectfully submit that *Yanikoglu* does not anticipate Claim 1.

Independent Claim 22 recites "determining a definition of at least one region in the image, the region definition having a location specification and a type specification," "generating an image layout definition comprising the region definition," "searching for an image layout definition template that best matches the generated image layout definition" and "conforming the generated image layout definition to the best-matched image layout definition template" (emphasis added). *Yanikoglu* clearly does not anticipate Claim 22. *Yanikoglu* is directed toward benchmarking document page segmentation algorithms by comparing the results of the algorithms against a ground-truth file for the particular document page. In the Office Action, the Examiner appears to indicate that because the results of the algorithm are compared against a

ground truth file, there is a suggestion that during such testing, a search would have been made for an RDIFF file to compare to the output generated by the algorithm (Office Action, pages 4 and 5). Applicants respectfully submit that searching for the particular ground truth file against which the algorithm result is compared is not the same as searching for a "best-matched image layout definition template" as recited by Claim 1. To the contrary, an arbitrarily discovered document image that may "best match" the algorithm result may be completely unrelated to the particular document image that is the subject of the test, thereby resulting in an inaccurate and unreliable analysis of the algorithm. Moreover, any search to locate the ground truth file for such comparison would surely identify with particularity the precise file for the comparison, as opposed to any randomly discovered file that may happen to "best match" the algorithm result. Therefore, for at least these reasons, *Yanikoglu* does not anticipate Claim 22.

Additionally, *Yanikoglu* does not disclose or even suggest "conforming the generated image layout definition to the best-matched image layout definition template" as recited by Claim 22. In fact, the Examiner does not appear to have even addressed this limitation of Claim 22. Accordingly, Applicants respectfully submit that no *prima facie* rejection of Claim 22 has been established.

Independent Claim 48 recites "a graphical user interface operable to display the image, and receive a definition of at least one region in the image," "the graphical user interface further operable to receive a user-specified definition of a visible area having a specification of margins around the image" and "a processor generating an image layout definition comprising the region definition **and** the visible area definition" (emphasis added). At least for the reasons discussed above in connection with independent Claim 1, Applicants respectfully submit that *Yanikoglu* also does not anticipate Claim 48.

Claims 2, 23-24, 26 and 46 that depend respectively from independent Claims 1 and 22 are also not anticipated by *Yanikoglu* at least because they incorporate the limitations of respective Claims 1 and 22 and also recite additional limitations that further distinguish *Yanikoglu*. Accordingly, Applicants respectfully request that the rejection of Claims 1-2, 22-24, 26, 46 and 48 be withdrawn.

SECTION 103 REJECTIONS

Claims 12-14, 33-35 and 58-60 were rejected under 35 U.S.C. 103(a) as being unpatentable over *Yanikoglu*. Claims 3, 11, 25, 32 and 57 were rejected under 35 U.S.C. §103(a) as being unpatentable over *Yanikoglu* in view of U.S. Patent No. 5,767,978 issued to Revankar et al. (hereinafter "*Revankar*"). Claims 4 and 50 were rejected under 35 U.S.C. §103(a) as being unpatentable over *Yanikoglu* in view of U.S. Patent No. 6,768,816 issued to Hall Jr. et al. (hereinafter "*Hall*"). Claims 5 and 51 were rejected under 35 U.S.C. §103(a) as being unpatentable over *Yanikoglu* in view of U.S. Patent No. 6,735,740 issued to Sakai et al. (hereinafter "*Saka*"). Claims 6, 27 and 52 were rejected under 35 U.S.C. §103(a) as being unpatentable over *Yanikoglu* in view of U.S. Patent No. 6,163,623 issued to Ohta. Claims 7, 15, 28, 36 and 53 were rejected under 35 U.S.C. §103(a) as being unpatentable over *Yanikoglu* in view of U.S. Patent No. 5,822,454 issued to Rangarajan (hereinafter "*Rangarajan*"). Claims 8-10, 17, 29-31, 38 and 54-56 were rejected under 35 U.S.C. §103(a) as being unpatentable over *Yanikoglu* in view of *Rangarajan* and further in view of *Revankar*. Claims 16, 20, 37, 41, 61 and 64 were rejected under 35 U.S.C. §103(a) as being unpatentable over *Yanikoglu* in view of *Rangarajan* and in further view of U.S. Patent No. 5,999,664 issued to Mahoney (hereinafter "*Mahoney*"). Claims 18-19, 39-40 and 62-63 were rejected under 35 U.S.C. §103(a) as being unpatentable over *Yanikoglu* in view of *Rangarajan* and further in view of *Mahoney* and U.S. Patent No. 5,848,184 issued to Taylor et al. (hereinafter "*Taylor*"). Claims 21, 42 and 65 were rejected under 35 U.S.C. §103(a) as being unpatentable over *Yanikoglu* in view of *Rangarajan* and further in view of *Mahoney* and U.S. Patent No. 6,594,030 issued to Ahlstrom et al. (hereinafter "*Ahlstrom*"). Claims 43-45 and 47 were rejected under 35 U.S.C. §103(a) as being unpatentable over *Yanikoglu* in view of *Mahoney*. Applicants respectfully traverse these rejections.

Claims 3-21, 25, 27-45, 47, 50-65 depend respectively from independent Claims 1, 22 and 48. As indicated above, Applicants respectfully submit that independent Claims 1, 22 and 48 are patentable over *Yanikoglu*. Moreover, none of the references relied upon by the Examiner in these rejections appear to remedy the deficiencies of *Yanikoglu* indicated above. Therefore, Applicants respectfully submit that for at least this reason, Claims 3-21, 25, 27-45, 47, 50-65 are also patentable.

CONCLUSION

Applicants have made an earnest attempt to place this case in condition for immediate allowance. For the foregoing reasons and for other reasons clearly apparent, Applicants respectfully request reconsideration and full allowance of all pending claims.

A Petition for Extension of Time under 37 C.F.R. § 1.17(a)(1) for a one (1) month extension is enclosed hereto. The Commission is hereby authorized to charge the extension fee in the amount of \$120 to Deposit Account No. 08-2025 of Hewlett-Packard Company. If, however, Applicants have miscalculated the fee due with this response or overlooked the need for any other fee, the Commissioner is hereby authorized to charge any fees or credit any overpayment associated with this response to Deposit Account No. 08-2025 of Hewlett-Packard Company.

Respectfully submitted,

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